

### REMARKS

In the Office Action, claims 10-26 are pending and are rejected under 35 U.S.C. 102(e) as allegedly being anticipated by North, et al. (U.S. Patent No. 5,693,591) and Parr, et al. (U.S. Patent No. 5,885,932). Claims 10-26 also stand rejected under 35 U.S.C. 103(a) as being unpatentable over North, et al. (U.S. Patent No. 5,693,591) and Parr, et al. (U.S. Patent No. 5,885,932).

The rejections of record are respectfully traversed; reconsideration thereof in view of the distinguishing remarks made herein is respectfully requested.

#### The Invention

Initially, it appears that the Examiner may be unclear as to what the claimed invention is. In this regard the Examiner is respectfully requested to note that in the prior art (US 5,693,591 to North and US 5,885,932 to Parr hereinafter also represented as '591 and '932) a composition is disclosed comprising compound A) the alkoxyated amine/ammonium surfactant, and compound B) the inorganic nitrate rest-breaking agent. **These are two (2) component systems!** In contradistinction the claimed invention is directed to a composition comprising A) all surfactants including the alkoxyated ones of the cited prior art, B) the inorganic nitrate rest-breaking agent, and C) the organic nitrogen-containing compound not being A) and not overlapping with A). Hence, the claimed invention is directed to a composition that comprises a **3-component system**, whereas both pieces of prior art cited to reject the present claims are directed to two (2) component systems.

Concerning the present examples, in Example 1 a composition comprising A) an alkoxyated amine surfactant (Acer907s98), B) an inorganic nitrate rest breaking agent (GAN), and C) an organic nitrogen-containing compound (AcerCC98), i.e., a **three (3) component system of the invention**, is compared with a composition only comprising **two (2) components**, components A) and B) (Comp. Example C). In these examples it

is clearly demonstrated that the three (3) component system of the invention containing A), B), and C) has a surprising and unexpected technical effect that the prior art compositions comprising only A) and B) (as disclosed in the US patents discussed below) does not possess. This technical effect is an increase in bud break activity. Hence, the further invention is the use of our compositions in a method where the effect is demonstrated, i.e. the method for breaking rest in deciduous fruit trees.

**I. The Rejection of Claims 10-26 Under 35 U.S.C. 102(e) Over North, et al. (U.S. Patent No. 5,693,591) and Parr, et al. (U.S. Patent No. 5,885,932)**

Starting at page 8 of the Action, the Examiner alleges that the organic nitrogen-containing compound selected from the group of ethylene diamine, (C1-C3)-alkylated ethylene diamines, (carboxymethyl)-tri-(C1-C3)alkylammonium salts, (2-hydroxyethyl)tri(C1-C3)alkyl ammonium salts, (2-hydroxypropyl)tri(C1-C3)alkyl ammonium salts, (2-hydroxybutyl)tri(C1-C3) alkyl ammonium salts, and mixtures thereof is not novel because use of an alkoxylated amine/ammonium surfactant is already known. However, the examiner is respectfully requested to note that none of organic nitrogen-containing compounds of claim 1 is an alkoxylated amine or alkoxylated ammonium compound as disclosed in the prior art documents. More particularly, said compounds are compounds **where hydroxyl groups are alkoxylated**, resulting in an ether, while in the organic nitrogen-containing compounds of claim 1 the only alkoxylated atom is the nitrogen atom, resulting in a **hydroxyl-functional alk(ox)ylated amine**. Because of this **significant difference** it is respectfully submitted that the rejection of claims 10-26 under 35 U.S.C. 102(e) is clearly improper and cannot stand.

One further point. At page 9 of the Action the Examiner states that the compounds embraced by the instant claims and the compounds of the prior art are homologues (see lines 1-6). Then, in the context of this **Section 102 rejection** the Examiner states the following at page 9, second full paragraph of the Action:

"Compounds that differ only by presence of an extra methyl group are homologues. Homologues are of such close structural similarity that the disclosure of a compound renders **prima facie obvious** its homologue."

(Emphasis ours.) **Applicants strongly disagree with the Examiner's conclusions.**

Initially, regarding homologues, it is fairly basic in the chemical arts that an alkoxyated compound is distinguishable from a hydroxyl-substituted compound, even though the difference may only be an alkyl group. An alkoxyated compound is an ether, while a hydroxyl-substituted compound is an alkanol. These are clearly **NOT HOMOLOGUES** as alleged by the examiner and this can be easily confirmed by reference to almost any chemistry text or dictionary.

But, even assuming pro arguendo that they were homologues, that still would be insufficient basis for maintaining the rejection of claims 10-26 under 35 U.S.C. 102(e), i.e., a homologue may render a claimed compound **prima facie obvious** under section 103...but it is clear that homologues do not anticipate under section 102.

In view of the foregoing, applicants respectfully submit that the rejection of claims 10-26 under 35 U.S.C. 102(e) is clearly improper; reconsideration and withdrawal thereof is respectfully requested.

**I. The Rejection of Claims 10-26 Under 35 U.S.C. 103 Over North, et al. (U.S. Patent No. 5,693,591) and Parr, et al. (U.S. Patent No. 5,885,932)**

The comments made above are incorporated herein by reference.

Of primary importance it is worth repeating that the prior art (US 5,693,591 to North and US 5,885,932 to Parr hereinafter also represented as '591 and '932) disclose a composition comprising compound A) the alkoxyated amine/ammonium surfactant,

and compound **B**) the inorganic nitrate rest-breaking agent. **These are two (2) component systems.** In contradistinction the claimed invention is directed to a composition comprising **A)** all surfactants including the alkoxylated ones of the cited prior art, **B)** the inorganic nitrate rest-breaking agent, and **C)** the organic nitrogen-containing compound not being A) and not overlapping with A). Hence, the claimed invention is directed to a composition that comprises a **3-component system**, whereas both pieces of prior art cited to reject the present claims are directed to two (2) component systems.

In the present examples it was demonstrate that when using the composition of present claims 1 to 8 in an application as covered by claims 9 and 10, a surprising and valuable technical effect in overall bud break in deciduous fruit species was observed. As indicated in the application on p. 3, ll. 10-16, bud break is a parameter for evaluating the rest-breaking activity of a composition.

US '591 discloses an additive that promotes the activity of rest-breaking agents for deciduous fruit trees. US '591 is an equivalent of WO 94/23574, which is discussed in the description of the subject patent application (p. 2, 1<sup>st</sup> para.). In the present description it is explained that the subject patent application differs from and is inventive over '591 because a more uniform bud break and a desired balance of vegetative and reproductive bud break are reached while an effective break of rest in deciduous fruit species is maintained. Moreover, the compositions of the subject patent application int. al. can be used in economically and environmentally acceptable concentrations and are non-hazardous to operators (see p. 2, 3<sup>rd</sup> para- p. 3, 2<sup>nd</sup> para.).

In the examples of the present application it is clearly demonstrated through comparative testing (see Comparison Example C and Example 1) that the further addition of an organic nitrogen-containing compound to compositions comprising an inorganic nitrate rest-breaking agent and a surfactant leads to a clear effect on overall bud break. **Nowhere in '591 is there a teaching or suggestion of this beneficial effect**

on bud break by the addition of an organic nitrogen-containing compound selected from the group of ethylene diamine, (C1-C3)-alkylated ethylene diamines, (carboxymethyl)-tri-(C1-C3)alkylammonium salts, (2-hydroxyethyl)tri(C1-C3)alkyl ammonium salts, (2-hydroxypropyl)tri(C1-C3)alkyl ammonium salts, (2-hydroxybutyl)tri(C1-C3) alkyl ammonium salts, and mixtures thereof. US '591 also fails to teach or suggest that the addition of an organic nitrogen-containing compound selected from the group of ethylene diamine, (C1-C3)-alkylated ethylene diamines, (carboxymethyl)-tri-(C1-C3)alkylammonium salts, (2-hydroxyethyl)tri(C1-C3)alkyl ammonium salts, (2-hydroxypropyl)tri(C1-C3)alkyl ammonium salts, (2-hydroxybutyl)tri(C1-C3) alkyl ammonium salts, and mixtures thereof, to the compositions of inorganic nitrate rest-breaking agents and surfactants disclosed in '591.

US'932 essentially discloses the same subject-matter as '591 but for a different application, i.e. non-deciduous fruit trees. Therefore, it is believed to be less relevant than '591 since one of ordinary skill in the art looking for a composition to be applied in the field of deciduous fruit trees would not consult '932.

Regarding unobviousness, the same arguments that distinguish the claimed invention over '591 also apply in distinguishing the claimed invention over '932. More specifically, '932 also only discloses a composition of an inorganic nitrate rest-breaking agent and a surfactant and does not disclose or suggest the further addition of an organic nitrogen-containing compound, nor does it teach or suggest the positive effect on bud break realized by the addition of this organic nitrogen-containing compound.

It appears that in addition to relying on each of the prior art documents individually, the Examiner is also relying on a combination of said documents in order to reject the pending claims. In the first instance, applicants respectfully submit that '591 and '932 documents relate to different technical fields, one to the field of deciduous fruit, the other to non-deciduous fruit. Thus, one of ordinary skill in the art would not be motivated to combine them. Secondly, one of ordinary skill in the art field of deciduous fruit seeking a solution to a problem would not consult a publication in the field of non-

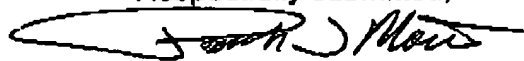
deciduous fruit. Thirdly, even if one were to combine the two documents as suggested by the Examiner, one still would not arrive at the claimed invention, i.e., the cited documents fail to disclose or suggest the addition of an organic nitrogen-containing compound selected from the group of ethylene diamine, (C1-C3)-alkylated ethylene diamines, (carboxymethyl)-tri-(C1-C3)alkylammonium salts, (2-hydroxyethyl)tri(C1-C3)alkyl ammonium salts, (2-hydroxypropyl)tri(C1-C3)alkyl ammonium salts, (2-hydroxybutyl)tri(C1-C3) alkyl ammonium salts, and mixtures thereof to the compositions of inorganic nitrate rest-breaking agents and surfactants to acquire the effects indicated in the subject patent

For all of the foregoing reasons, applicants respectfully submit that claims 10-25 stand improperly rejected under 35 U.S.C. 103(a) over '591 and '932 individually or in combination. Reconsideration and withdrawal of the rejection is respectfully solicited.

The amendments to the claims and comments of record are believed to overcome all of the section 112 rejections of record; reconsideration and withdrawal thereof is respectfully requested.

In view of the foregoing, the present application is believed to be in condition for allowance, which action is respectfully solicited.

Respectfully submitted,



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